Amendments to the Claims

1. (Original) A turbine engine comprising:
a central shaft; and
a rotor stack carried by the central shaft; and
one or more retainer segments each having a first surface engaging the rotor stack and a second surface engaging the central shaft to transmit a precompression force from the central shaft to the rotor stack.

2. (Original) The turbine engine of claim 1 wherein there are at least two such retainer segments.

3. (Currently amended) The turbine engine of claim 2 further comprising:
a full annulus collar securing the retainer segments in place against radial displacement.

4. (Original) The turbine engine of claim 3 wherein:
the collar is longitudinally restrained by a bearing support element.

5. (Original) The turbine engine of claim 1 wherein:
said retainer segments are proximate a forward end of the rotor stack; and
there are exactly two said retainer segments proximate said forward end.

6. (Original) The turbine engine of claim 1 wherein:
the shaft has a rebate having a forward surface engaging said second surfaces.

7. (Original) The turbine engine of claim 6 wherein:
the rebate is a full annulus.

8. (Original) The turbine engine of claim 6 wherein:
the rebate has an aft surface and a base surface between the forward surface and the aft

surface; and

the base surface is essentially rearwardly divergent at a half angle in excess of 5°.

9. (Original) The turbine engine of claim 6 wherein:
the forward surface is essentially within 5° of radial.

10. (Original) The turbine engine of claim 6 wherein:
said precompression force is at least 50kN.

11. (Original) The turbine engine of claim 6 wherein:
the rotor is a high speed compressor rotor.

12. (Original) The turbine engine of claim 6 wherein:
the rotor lacks off-center tie rods.

13. (Withdrawn) A method comprising:
assembling a rotor stack to a turbine engine shaft;
exerting force between the rotor stack and the shaft to place the shaft under tension and the rotor stack under compression;
inserting one or more retainer segments into a rebate in the shaft; and
releasing the exerted force to permit the rotor stack to bear against the retainer segments.

14. (Withdrawn) The method of claim 13 wherein there are at least two retainer segments.

15. (Withdrawn) The method of claim 14 further comprising:
installing a collar at least partially surrounding the retainer segments so as to secure the retainer segments in place against radial displacement.

16. (Withdrawn) The method of claim 13 wherein:
the exerting compresses the rotor stack with a force in excess of 50kN.

17. (Withdrawn) The method of claim 13 wherein:

the releasing leaves the rotor stack under a precompression force of at least 50kN.

18. (Withdrawn) The method of claim 13, wherein:

the assembling includes interference fitting an end portion of at least one spacer element within a portion of at least one rotor disk.

19. (New) The turbine engine of claim 1 wherein:

the rotor stack comprises a plurality of disks having respective central apertures; and

the central shaft passes freely through said central apertures.

20. (New) The turbine engine of claim 19 wherein:

the central shaft passes through said apertures with clearance.

21. (New) The turbine engine of claim 1 wherein:

the rotor stack comprises a plurality of disks having respective bores encircling respective central apertures; and

the rotor stack is clear of the central shaft of said bores.